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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/636,781	08/11/2000	Axel Burmeister	Beiersdorf 630-	8467

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EXAMINER

LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

8

DATE MAILED: 06/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF=8

Office Action Summary	Application No.		Applicant(s)	
	09/636,781		BURMEISTER ET AL.	
	Examiner		Art Unit	
	Rip A. Lee		1713	

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☒ Claim(s) 1-11 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 4. 6) ☐ Other:

DETAILED ACTION

This office action follows a preliminary amendment in which claims 2-10 were amended.

Election/Restrictions

1. Applicant's election with traverse of group I, claims 1-7 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that if group I is found novel and unobvious, then groups II and III must also be novel and unobvious. This is not found persuasive because inventions I and III were deemed unrelated. Furthermore, inventions I and II, although related as mutually exclusive species, were shown to be distinct entities (See Paper No. 5).

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The claim recites the terms "metallocene catalyzed polyolefins" and "synthetic block copolymer rubbers," ~~of which there are innumerable types.~~ Without qualification, the claim remains vague and ambiguous.

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4. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "particularly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

5. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite since it contains improper Markush language. According to MPEP 2173.05(h), when materials are so related as to constitute a proper Markush group, they may be recited as, "wherein R is a material selected from the group consisting of A, B, C, and D," or "wherein R is A, B, C, or D."

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,021,391 to Ijichi *et al.*

Ijichi *et al.* discloses a pressure sensitive adhesive (PSA) comprising a non-thermoplastic elastomer, 0.75-1.2 equivalents of a polyfunctional isocyanate, and 10-70 parts by weight of a tackifier (claim 1). The elastomer is a homopolymer of a diene monomer selected from butadiene,

isoprene, and chlorprene (claim 8). A catalyst can be used to accelerate the reaction between polymer and isocyanate (col. 6, line 1).

8. Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,760,135 to Korpman *et al.*

Korpman *et al.* discloses a PSA composition comprising a mixture of a solid rubber and a liquid rubber. The non-thermoplastic elastomer component is selected from isoprene, butadiene-styrene, butadiene, *inter alia* (claim 1), a polyisocyanate compound as the crosslinking agent (claim 6), and 3-20 % by weight of a tackifier resin (claim 10). The thermoplastic elastomer component may consist of block copolymers (col. 3, line 20). The composition may also include fillers such as zinc oxide, titanium oxide, and carbon black (col. 5, lines 3-4).

9. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,932,558 to Kest *et al.*

Kest *et al.* teaches a composition comprising a liquid diene telechelic polymer material selected from the group comprising styrene terminally located rubber, polyisoprene, polychloroprene, and random copolymers of styrene and butadiene, a polyisocyanate component, and a resin material in the amount of 100-200 parts by weight (claims 1, 6, and 9).

10. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 58-7471.

The cited reference discloses an adhesive composition comprising (A) a liquid rubber such as polybutadiene, (B) 10-1000 parts of a tackifying resin, and (C) a polyisocyanate crosslinking component.

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11. Claims 1, 2 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,204,046 to Minatono *et al.*

Minatono *et al.* teaches a PSA composition comprising a liquid rubber, *i.e.*, polyisoprene (claim 1), a polyisocyanate crosslinking agent (claim 9), and 0.1-200 parts by weight of tackifier (claim 11). Compositions of the invention may include naphthenic oil as a plasticizer (Table 5).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,760,135 to Korpman *et al.* in view of U.S. Patent No. 3,956,223 to Chiang *et al.*

The discussion of the disclosures of the prior art of Korpman *et al.* from paragraph 8 of this office action is incorporated here by reference. The reference does not teach the use of plasticizing oils specifically, although the use of "oils" is contemplated (col. 4, line 64). The use of oils in such compositions is well-established in the art. For example, Chiang *et al.* show that naphthenic process oils are useful for building up the softness of the tack and to adjust flow properties and plasticity of pressure sensitive adhesives. In view of the references, it would have been obvious to one having ordinary skill in the art to use this particular material in the composition of Korpman *et al.*, and one would have expected such an modification to produce a useful pressure sensitive adhesive.

X 15. Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,204,409 to Arend *et al.* in view of Ijichi *et al.*

Arend *et al.* teaches the use of polyisocyanates as crosslinking agents for polymeric adhesives selected from the group consisting of natural and synthetic rubbers (claims 1-6). The inventors contemplate the use of natural resins, modified natural resins, or synthetic resins to modify adhesive properties, for example, to obtain particularly long-lasting contact tackiness or to increase cohesive strength (col. 2, lines 42-50). The reference does not state the identity or amount of such materials. Ijichi *et al.* indicates that 10-70 parts by weight of tackifiers are suitable for such a purpose, and several examples of tackifiers are described within the text. Regarding claim 1, one having ordinary skill in the art would have found it obvious to

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incorporate the tackifier resins of Ijichi *et al.* into the composition of Arend *et al.* because such an embodiment is strongly suggested. One having skill in the art would have composed an adhesive containing natural or synthetic rubbers, polybutadienes or polyisoprenes because these materials are used in the prior art. It would also be obvious to use a catalyst to accelerate crosslinking since this is also taught in the prior art.

16. Claims 1-3, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,860,673 to Lawrence.

Lawrence discloses an elastomeric composition, useful as an adhesive, comprising a synthetic or naturally occurring elastomer, an organic polyisocyanate, and a catalyst (claim 1). The use of a tackifying resin such as wood rosin and terpene-phenolic resin is contemplated (col. 4, lines 9-11). In Example 1, the composition is found to contain 25 parts of tackifying resin component. Elastomers include natural rubber and styrene-butadiene rubber (col. 1, lines 52-53). Further elastomers which may be employed include copolymers of ethylene and propylene, terpolymers of ethylene, propylene, and diene, and polyurethanes (col. 1, line 59-62). Moreover, blends of elastomers may be employed (col. 1, line 58). Other components include zinc oxide and magnesium oxide (col. 4, line 8). Although no single embodiment that encompasses all the claims are shown in the examples, it would have been obvious to one having ordinary skill in the art to arrive at the claims of the present invention because all aforementioned elements lie within the generic disclosure of the reference. It would be obvious to make a pressure sensitive adhesive using a blend of elastomers because this is also contemplated in the prior art.

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17. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure. The following references relate to polyisocyanate crosslinked elastomeric PSA materials.

U.S. Patent No. 4,163,764 to Nash

U.S. Patent No. 4,603,164 to Chmiel *et al.*

U.S. Patent No. 4,851,462 to Chmiel *et al.*


U.S. Patent No. 5,717,031 to Degen *et al.*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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June 10, 2002


DAVID W. WU
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